

GETTING THE BASICS RIGHT

Allergic Rhinitis: A common problem, not to be sneezed at!

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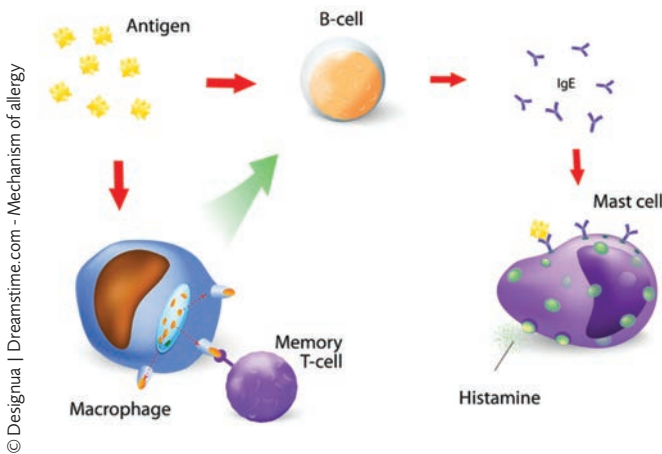
There are various forms of rhinitis, which is defined as inflammation of the nasal mucosa and can be due to various causes such as an allergen, infection, vaso-motor abnormality (caused by an irritant). The condition may also involve the sinuses and is known as rhino-sinusitis.

Allergic rhinitis is caused by inhalation of allergens such as pollen, dust, or animal dander that trigger an abnormal IgE reaction in the nose of susceptible people, especially those with asthma or a family history of atopy.

allergic rhinitis is often seen by patients and health care professionals as trivial, which it is not.

Allergic rhinitis may be seasonal, perennial or both. The classical seasonal rhinitis, known as hay fever, is widely recognised, occurring in the summer months, triggered by grass pollens, and causing streaming eyes (allergic conjunctivitis) sneezing, itchy nose/palate and runny or blocked and snuffy nose. However, seasonal rhinitis may occur in any season e.g Autumn, when it may be due to spores from moulds. Symptoms may start as early as January and February when the trees start to produce their pollen. Chart 1 illustrates the year round pollen triggers; others triggers include house dust mite (HDM), animal dander, hobbies or occupational allergens.

THE MECHANISM OF ALLERGY



It is more common in children and younger adults. The pathophysiology of allergic rhinitis is very similar to that seen in asthma or eczema. Release of mediators from cells causes the inflammation and symptoms experienced by the individual.

Allergic rhinitis is a common problem in the UK, affecting approximately 20% of the population, with 80% of people with asthma having nasal symptoms as well as asthma.¹ Patients may also have symptoms of allergic conjunctivitis and/or eczema. Despite being the root cause of a high level of morbidity and health care costs²

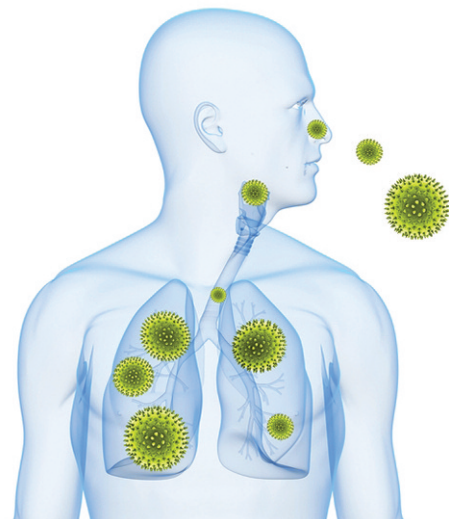
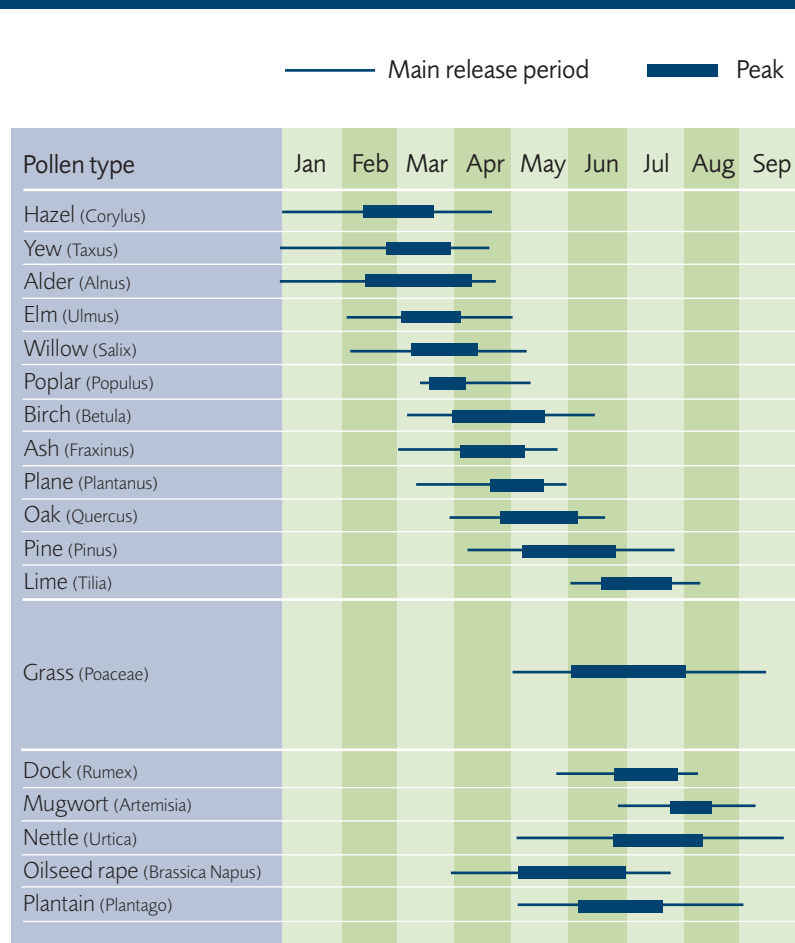


Chart 1. Pollen calendar



Adapted from the Met Office pollen chart <http://www.metoffice.gov.uk>

For free pollen forecast visit www.metoffice.gov.uk/public/weather/forecast/?tab=map&map=Pollen

Diagnosis of allergic rhinitis

The diagnosis of allergic rhinitis starts with simply asking questions about any nasal symptoms. An ideal opportunity to do this is during an asthma review. Asthma templates should include read codes relating to rhinitis to prompt the clinician to ask about any symptoms.

The ARIA Guidelines classify allergic rhinitis as intermittent or persistent, and mild, moderate or severe, depending on symptoms and their frequency.³ Although the mechanism is not quite clear, poorly treated rhinitis is linked with sub optimal control of asthma.^{2,3} It is thought this may be due to mediator release triggering both rhinitis and asthma or direct trickling of inflammatory products into the lower respiratory system.

Allergic rhinitis may be triggered by a person's occupation and therefore questions about occupational history and when symptoms occur are important.⁴ The rhinitis may precede asthma by several years; so removal from exposure to the allergen is essential to stop this "allergic march".

Allergic rhinitis is mainly diagnosed on clinical history, supported by nasal examination and in some cases, allergy testing (although availability of this in primary care is variable). Allergy testing is useful if the allergen causing the symptoms can be avoided e.g animal dander. This is more difficult if the allergen identified is a pollen, although exposure can be minimised. Various web sites e.g. Met Office⁵ and mobile

Symptoms of allergic rhinitis could be any or all of the following:

- Sneezing
- Nasal discharge which is usually clear and runny or
- Nasal blockage/stuffy, usually bilateral
- Post nasal drip
- Itchy Palate
- General debility (headaches, tiredness)

Symptoms are bilateral, further investigation and possible referral may be needed if symptoms are persistently unilateral, as this could be a sign of blockage caused by polyps or more seriously, a carcinoma.

phone applications may be accessed to provide awareness of pollen counts, enabling the sufferer to reduce exposure by staying indoors, closing windows or wearing sunglasses if venturing outside. Drying laundry in a tumble dryer to prevent bringing pollen indoors may be useful. Avoidance of the allergen, if known and possible, should be encouraged.

Management of allergic rhinitis

Management will depend on the severity of symptoms. See page 19 for an algorithm detailing treatment options.⁶

A once daily, non sedating, antihistamine may be all that is needed to control the symptoms. Antihistamines are commonly taken orally, but are also available as nasal sprays. More recently a combination of nasal steroid with an antihistamine can be prescribed for more severe cases where prior treatment has failed. Many patients prefer to buy these products at a pharmacy ('over the counter') as a prescription is not always required and it may be cheaper. It is worth remembering to ask patients if they have already tried any 'OTC' products.

Nasal douching has become more popular in recent years and can be tried. Douching removes the triggers from the nasal passages together with the inflammatory products.

If nasal symptoms persist, nasal corticosteroid sprays should be introduced, these are particularly useful in treating nasal blockage. Allergic rhinitis has been likened to "asthma in the nose" therefore, it is not surprising that a

nasal corticosteroid spray should be used to treat the condition. It must be stressed that, as with inhaled corticosteroids for asthma, use of the nasal spray should be regular, usually daily, and not just when symptoms are troublesome. Nasal inhaler technique is also very important and often incorrectly done by patients.

Short term use (< 7days) of a nasal or oral decongestant may be advised during particularly severe episodes, especially if nasal blockage is a problem.

Leukotriene receptor antagonists (LTRAs) are another treatment which is particularly helpful to treat persistent symptoms in patients with asthma as they treat both conditions.

It is also worth considering the total steroid daily dose if a patient is already on an ICS for asthma and possibly steroid creams for eczema. Systemic absorption between ICS and nasal steroids varies and should be considered when recommending treatments.

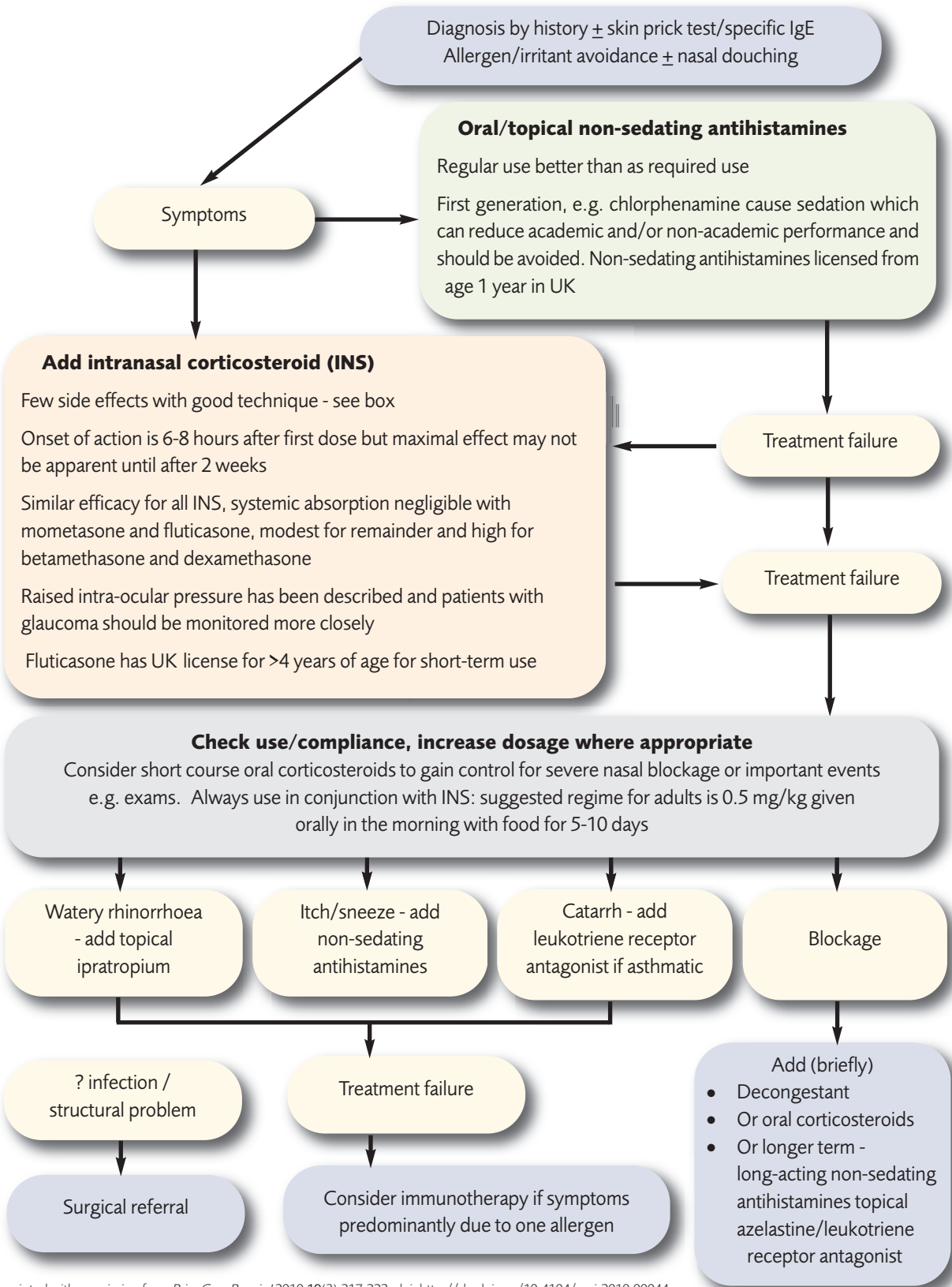
Unfortunately, the peak hay fever season often coincides with examination time for teenagers. It has been found that untreated/poorly managed allergic rhinitis can affect exam results.^{7,8} It is good practice to start treatment at least 2 weeks ahead of the expected onset of the hay fever season so that treatment is well established when the pollen count begins to rise. This preventative action could be included in a Personal Asthma Action Plan (PAAP). Routine reviews could be planned so that recall occurs just before the expected onset of hay fever.

Professional Development – Further Study and Reflection

Visit the Asthma UK website at <http://www.asthma.org.uk/Sites/healthcare-professionals/news/the-asthma-uk-helpline-in-action-rhinitis> to read about a case study on how to explain to a teenager that "the cold that won't go away" is actually rhinitis. Have you got any adolescents with rhinitis? Are you confident in explaining to them what rhinitis is and how it is best treated? Are you prepared for the hay fever season and can you support your teenagers with rhinitis who are going through their exams? Why not prepare a short case study of one of your patients with asthma and rhinitis and reflect on how you are best able to support this patient?

The British Society for Allergy and Clinical Immunology undertake regional primary care allergy training days. For more information visit their website at <http://www.bsaci.org/meetings-and-events/regional-meetings>

Algorithm for the treatment of rhinitis



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Top Tips - Rhinitis



1. Allergic rhinitis lasts longer than a cold – but colds trigger more asthma attacks. The main difference between a cold and rhinitis is how long the patient has been having symptoms. Cold symptoms that continue longer than a week, regardless of the time of year, are usually due to something other than a virus. If the patient does in fact have a cold and not rhinitis remind them to be vigilant about their asthma. The cold virus is the most common trigger for asthma and this can be especially difficult for children as they catch colds more frequently than adults.
2. Think Christmas - Think Rhinitis. Alder, birch and hazel can come into pollen as early as January. If you have patients who have seasonal rhinitis caused by these trees then they need to start their nasal spray or drops and antihistamine tablets two weeks before their rhinitis symptoms begin. Asthma reviews for these patients should ideally be in December so their medications are up to date and ready for them to start taking in the New Year. Grass pollen affects some people mainly May – July so for this group of people preventive treatments need to start in April. As well as seasonal rhinitis there is also perennial allergic rhinitis and these commonly relate to indoor allergens such as dust mites, pets, mould and smoking.
3. Nasal spray technique is paramount. Using the nasal spray correctly is the key to avoiding rhinitis flare ups. Key points are: point the spray slightly outwards and don't sniff! People often stop using their nasal spray because "it's not working" but in fact they are not using it properly. An excellent video is available at <http://www.itchysneezywheezy.co.uk/RhinitisVideos.html>.
4. Prevention is better than cure for rhinitis. Patients need to keep using their nasal spray even when they don't have symptoms. They might be using their nasal spray for months with no symptoms – tell them this is OK.
5. Decongestants can help occasionally but should only be taken for a short period of time. If the patient has a 'special day' eg exam or wedding nasal sprays that contains decongestant may be useful but should not be used regularly because after a few days they can actually make symptoms worse. In addition to proper treatment, proprietary non-drug solutions that douche or wash-out mucus from blocked noses and sinuses give temporary relief.

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<http://www.asthma.org.uk/Sites/healthcare-professionals/news/top-tips-rhinitis>

If all treatments have been explored and found not to fully control rhinitis symptoms, despite checking adherence and technique, it may be advisable to prescribe a short course of oral steroids to cover a particularly important event (e.g exam time).

In very severe cases, referral and immunotherapy may be needed, although this tends to be only suitable for patients without asthma and having a single trigger causing their rhinitis symptoms.

Allergic rhinitis can usually be very effectively managed in primary care, however, it is essential that patients and clinicians alike are aware of its significance and impact on the lives of sufferers.

Further information

- ARIA (Allergic Rhinitis Impact in Asthma) guidelines <http://www.whiar.org/Documents&Resources.php>
- Allergy UK <https://www.allergyuk.org/hayfever-and-allergic-rhinitis/hayfever-and-allergic-rhinitis>.
- British Society for Allergy and Clinical Immunology (BSACI) Primary Care Guidelines <http://www.bsaci.org/guidelines/primary-care-guidelines>

References

1. Angier E, Willington J, Scadding G, Holmes S, Walker S. Management of allergic and non-allergic rhinitis: a primary care perspective summary of the BSAIC guideline. *Prim Care Respiratory J* 2010;**19**:217-22. (<http://www.nature.com/articles/pcrj201044>)
2. Clatsworthy J, Price D, Ryan D, Haughney J, Horne R. The value of self-report assessment of adherence, rhinitis and smoking in relation to asthma control. *Prim Care Respiratory J* 2009;**18**:300-305 (<http://www.nature.com/articles/pcrj200937>)
3. Management of allergic rhinitis and its impact on asthma (ARIA) <http://www.whiar.org/Documents&Resources.php>. Last accessed 20/04/15
4. Moscato G, Vandeplas O, Van Will RG, *et al*. EACCI Position paper on occupational rhinitis. www.respiratory_research/fulltext (accessed 02.04.2015)
5. Meteorological Office. Pollen chart. <http://www.metoffice.gov.uk> (accessed 07.04.2015)
6. Scadding G, Walker S. Poor asthma control? - then look up the nose. The importance of co-morbid rhinitis in patients with asthma. *Prim Care Respiratory J* 2012; **21**:222-28 (<http://www.nature.com/articles/pcrj201235>)
7. Walker S, Khan-Wasti S, Fletcher M, Cullinan P, Harris J, Sheikh A. Seasonal allergic rhinitis is associated with a detrimental effect on examination performance in United Kingdom teenagers: case-control study. *J Allergy Clin Immunol* 2007;**120**:381-7. <http://dx.doi.org/10.1016/j.jaci.2007.03.034>
8. Hammersley V, Walker S, Sheikh A. Is it unfair to hay fever sufferers to have to sit examinations during periods of high pollen counts? *Expert Rev Resp Med* 2010;**4**:421-5.